

Date: Fri, 15 Oct 93 15:29:44 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #1225
To: Info-Hams

Info-Hams Digest Fri, 15 Oct 93 Volume 93 : Issue 1225

Today's Topics:

 COMMENT ON AMSAT KEPS
Commercial Operators Exams to be given at Hosstraders 16 Oct NH
 HamCall CD-ROM Recommendations?
 JNOS/ka9q under Coherent
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 New HF Rig
 New UHF "Personal Use" Band?
Nowhere,KS--Special Event Station
Opinions sought on TH78A/FT530 HTs
 ORBS\$288.D.AMSAT
 ORBS\$288.M.AMSAT
 ORBS\$288O.AMSAT
 Reciprocal licenses
VACUUM TUBE SOURCE NEEDED

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 15 Oct 93 20:36:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: COMMENT ON AMSAT KEPS
To: info-hams@ucsd.edu

Due to a problem with line limits in my INTERNET access BBS, I could not
send all the AMSAT keps as one message/file. Sorry for inconvenience.
I hope to resolve problem soon.

Date: Thu, 14 Oct 93 22:31:43 CDT
From: elroy.jpl.nasa.gov!swrinde!menudo.uh.edu!jpunix!unkaphaed!amanda!
robert@ames.arpa
Subject: Commercial Operators Exams to be given at Hosstraders 16 Oct NH
To: info-hams@ucsd.edu

w1gsl@athena.mit.edu (Steven L. Finberg) writes:

> Safety Systems (GMDSS) licenses. Amateur Extra Class operators may
> be particularly interested in obtaining a commercial telegraph
> license as they will receive credit for the 20 WPM 2nd class code exam.

Are they still issuing Commercial Radiotelegraph Certificates?

--Robert

Date: Fri, 15 Oct 1993 10:19:20 -0700
From: orca.es.com!cnn.sim.es.com!msanders.sim.es.com!user@uunet.uu.net
Subject: HamCall CD-ROM Recommendations?
To: info-hams@ucsd.edu

I have purchased one HamCall CD-ROM and am interested in any others that may be available. The data on them may be the same, depending upon their update times for new licensees, but pricing will be different and additional features will vary. I have heard of one called "SAM", and I purchased the Buckmaster CD. Buckmaster has about 6000 shareware programs on it in addition to most of the US callsigns and another host of international call signs. Buckmaster is \$50 plus shipping and updates in April and October. Any other information on the different CD-ROMs would be appreciated.

Thanks,
Milt

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Opinions, thoughts, &cetera are my own and not representative of Evans & Sutherland.

"He flies the sky
Like an Eagle in the eye
of a hurricane that's abandoned."

KB7MSF
Amateur Radio
"Sandman"

America
Salt Lake City Utah

work: (801) 582-5847 ext 6530
FAX: 5848
home: (801) 224-1757

Date: Thu, 14 Oct 93 19:58:46 PST
From: paris.ics.uci.edu!csulb.edu!library.ucla.edu!europa.eng.gtefsd.com!
howland.reston.ans.net!sol.ctr.columbia.edu!destroyer!nntp.cs.ubc.ca!
vanbc.wimsey.com!rwsys!rw@@news.service.uci.edu
Subject: JNOS/ka9q under Coherent
To: info-hams@ucsd.edu

rw@rwsys.wimsey.bc.ca (Randy Wright) writes:
> mike@uxp.bs2.mt.nec.co.jp (Mike Collinson) writes:
> > >>>> On Wed, 6 Oct 1993 16:57:38 GMT, bbigb.roch817@xerox.com (Bruce Bigby)
said:
> via pipes into one of the net packages. That would still be a great deal
> of programing, especially since pipes don't offer poll() services.

CORRECTION: Harry C. Pulley was kind enough to inform me that pipes
DO have poll() service as of about r72. Check the release notes.

Yours Truly,
Randy Wright
--

rw@rwsys.wimsey.bc.ca (Randy Wright) PGP2.2 key available

Date: 15 Oct 93 17:33:23 GMT
From: ogicse!emory!rsiatl!ke4zv!gary@network.ucsd.edu
Subject: MulitBand Antennas cont'd
To: info-hams@ucsd.edu

In article <931012111257_4@ccm.hf.intel.com> Cecil_A_Moore@ccm.hf.INTel.COM (Cecil
A Moore) writes:

>>Now we represent that on the Smith chart by a spiral that starts
>>at the 1.6:1 constant SWR circle and spirals out to the 2.263:1
>>circle as we move 100 feet from the generator. We can now read
>>all the handy information about impedances from the chart. No
>>big mystery.
>
>Gary, you are part of the 99% of the hams who don't understand.

I could be cruel and say there's a reason you're in the 1%, they're

right and you're wrong. But I suspect most of them don't know why they're right.

>At the end of the chapter on transmission lines in the ARRL Handbook
>is a chart that shows the transmission line losses given the SWR at
>the transmitter and the SWR AT THE ANTENNA. Your above "solution"
>is just one of the possibilities. That chart in the Handbook indicates
>that the range of possible losses in the transmission line with an
>SWR of 1.6/1 at the transmitter is 2db to 6db corresponding to SWRs
>of 2.3/1 up to 100/1 and higher AT THE ANTENNA and you cannot tell the
>difference by SWR measurements at the transmitter end.

I don't know what edition of the Handbook you're consulting, but the chart in *my* 1992 Handbook, figure 25 page 16-15, only gives one solution for a given input SWR and a given matched line loss. The equations from which it is derived are given in The ARRL Antenna Book, fifteenth edition, as equations 12, 13, 14, and 15 on page 24-14. Equation 12 is the one of interest to your complaint. It is

$S_L = (A+B)/(A-B)$ where S_L is the load end SWR and A and B are defined below

$A = (S_i + 1)/(S_i - 1)$ where S_i is the input end SWR

$B = 10^{L_m/10}$ where L_m is the coax line loss *if it were matched*,
IE the common table loss figure.

So as you can see, the load end SWR can be completely and uniquely determined by knowing the input end SWR and the matched line loss which you can either pre-measure, or look up in a table.

The reason using the matched line loss figure is valid was illustrated by my example calculation in my previous message. The matched line loss is what's seen by the reflected wave looking back into the 50 ohm source. And it's the loss seen by the incident wave prior to hitting the reflection point. The total line loss, matched and due to SWR, is given by equation 14.

$$L_t = 10 \log(B^2(A^2 - 1)/(A^2 - B^2))$$

Note that only components of input end SWR and matched line loss are needed to obtain total loss. That's because load end SWR is uniquely defined by those same components.

Gary

--

Gary Coffman KE4ZV |"If 10% is good enough | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary
534 Shannon Way | enough for Uncle Sam."| emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -Ray Stevens |

Date: Wed, 13 Oct 1993 13:58:43 GMT
From: spool.mu.edu!nigel.msen.com!sdd.hp.com!cs.utexas.edu!math.ohio-state.edu!
howland.reston.ans.net!europa.eng.gtefsd.com!darwin.sura.net!perot.mtsu.edu!
raider!theporch!@munnnari.oz.au
Subject: New HF Rig
To: info-hams@ucsd.edu

jab@hpuerca.atl.hp.com (Alan Barrow) writes:
> In <9310021637.AA24145@ucsd.edu> William=E.=Newkirk%Pubs%GenAv.Mlb@ns14.cca.C
> >>but I would like us all to look carefully at the Ten Tec offerings.
> >>Hard to do, now that our ham radio stores don't carry them.
> >this assumes that you are near a ham radio store.
> >what Ten-Tec missing out on is coverage in the AES/HRO etc.
> >you'd have to work to find the Ten-Tec stuff.
> I think Ten-Tec will go away soon. They have dropped dealers. OK, they
> have some valid complaints.
Maybe, maybe not...but that isn't why I am (late) jumping in here...

> But they appear to have stopped attending Hamfests. They were not at the
> Atlanta Hamfest this year. (Nor last year to my recollection)
Time was when it was worth attending the Atlanta HamFest (like when
AA4RM and I ran the Flea Market in the parking garage across from the
Marriott... the fest has moved several times, undergone several
changes in management, and is the cause of much friction in Atlanta.
This is unfortunate, but is no longer the mini-Dayton it once was.

Ten-Tec *was* at Huntsville, and has been for several years. This made
a bigger splash because of the ARRL National being at Hunstville this
year...

> Not that Atlanta was that great this year, but it is the largest GA
> hamfest, and the other major vendors were there.
I did not attend (was away being DX then) so I would reserve comment.
However, the "other major vendors" may have attended because of the
inertial moments from the past... unless the Atlanta 'Fest swings
back, they won't be coming for long...

> I suspect they have given up on the ham market. The big question is: do
> they have enough commercial business to keep going?
Just like ETO could fold up the Ham end of the business and still do
well, so can Ten-Tec. I hope they stick it out, because they are a

> I also think Ten-Tec missed several bets. The lack of a general coverage
> rcvr locked me out for 2 major radio purchases.
This is a personal preference. Sure, it would be nice to have, but I
bought an IC-70 for that....because I wanted the Ham transceiver to
behave like a ham transceiver and not like a jukebox.

I would gladly sacrifice general coverage for a fine quiet ham band receiver...especially quiet. Phase noise is a bear, and makes for problems with other equipment as well (like computers). This is one instance where not being on the bleeding edge gives Ten-Tec a superior receiver implementation, albeit with older technology. Some things just work better the old way, I guess... ;^)

> Anyway, the new rigs look pretty good, but still lack features. I would
> consider them, but not if I cannot look at a rig without driving to TN!
Geez, it's so pretty in east Tennessee this time of year. The Smokies
are pretty anytime, but now the leaves are turning and it just is
magnificent...good draw for the XYL to go along and sanction the
purchase! ;^)

[illegible]

Date: 15 Oct 93 18:17:02 GMT
From: ogicse!uwm.edu!caen!kuhub.cc.ukans.edu!heacock@network.ucsd.edu
Subject: Nowhere,KS--Special Event Station
To: info-hams@ucsd.edu

The Douglas County Amateur Radio Club will put special event station WB0AUQ on the air from Nowhere, Kansas, October 16, 1400-2100 UTC. Lower General sub-bands plus 28.495 MHz. For a certificate, send QSL and 9x12 SASE to Bob Rainbolt, WB0AUQ, 986 E. 1587 Rd., Lawrence, KS 66046.

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Doug Heacock, KANREN User Services	heacock@kuhub.cc.ukans.edu
Academic Computing Services	heacock@ukanaix.cc.ukans.edu
The University of Kansas	heacock@ukanvax.bitnet
Lawrence, Kansas 66045	Amateur radio: AA0MS

Date: Fri, 15 Oct 1993 01:36:28 GMT
From: elroy.jpl.nasa.gov!usc!hela.iti.org!nigel.msen.com!yale.edu!cs.yale.edu!
csusys.ctstateu.edu!white@ames.arpa
Subject: Opinions sought on TH78A/FT530 HTs
To: info-hams@ucsd.edu

I'm looking for opinions on the Kenwood TH78A and/versus the Yaesu FT530. Direct replies to white@csusys.ctstateu.edu
Thanks, and I'll post a summary to the group...
73's harry

Date: 15 Oct 93 20:20:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS\$288.D.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-288.D
Orbital Elements 288.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM WA5QGD FORT WORTH,TX October 15, 1993
BID: \$ORBS-288.D
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time: 93287.74004034

Element set: 902
Inclination: 98.6074 deg
RA of node: 10.6604 deg
Eccentricity: 0.0010837
Arg of perigee: 188.2101 deg
Mean anomaly: 171.8903 deg
Mean motion: 14.29796548 rev/day
Decay rate: 7.2e-07 rev/day^2
Epoch rev: 19451
Checksum: 298

Satellite: A0-16

Catalog number: 20439
Epoch time: 93285.21602800
Element set: 702
Inclination: 98.6146 deg
RA of node: 9.1530 deg
Eccentricity: 0.0011065
Arg of perigee: 196.1718 deg
Mean anomaly: 163.9127 deg
Mean motion: 14.29854129 rev/day
Decay rate: 1.09e-06 rev/day^2
Epoch rev: 19416
Checksum: 293

Satellite: D0-17

Catalog number: 20440
Epoch time: 93287.78324469
Element set: 702
Inclination: 98.6149 deg
RA of node: 11.9369 deg
Eccentricity: 0.0011286
Arg of perigee: 187.9570 deg
Mean anomaly: 172.1434 deg
Mean motion: 14.29991244 rev/day
Decay rate: 8.1e-07 rev/day^2
Epoch rev: 19454
Checksum: 330

Satellite: W0-18

Catalog number: 20441
Epoch time: 93287.68449871
Element set: 703
Inclination: 98.6151 deg
RA of node: 11.8577 deg
Eccentricity: 0.0011859
Arg of perigee: 188.4687 deg
Mean anomaly: 171.6297 deg

Mean motion: 14.29969421 rev/day
Decay rate: 4.7e-07 rev/day^2
Epoch rev: 19453
Checksum: 355

Satellite: L0-19

Catalog number: 20442
Epoch time: 93285.71973157
Element set: 702
Inclination: 98.6154 deg
RA of node: 10.1138 deg
Eccentricity: 0.0012034
Arg of perigee: 194.7920 deg
Mean anomaly: 165.2908 deg
Mean motion: 14.30060813 rev/day
Decay rate: 8.1e-07 rev/day^2
Epoch rev: 19426
Checksum: 286

Satellite: U0-22

Catalog number: 21575
Epoch time: 93285.23553413
Element set: 402
Inclination: 98.4589 deg
RA of node: 359.4059 deg
Eccentricity: 0.0007231
Arg of perigee: 316.6360 deg
Mean anomaly: 43.4257 deg
Mean motion: 14.36856146 rev/day
Decay rate: 1.31e-06 rev/day^2
Epoch rev: 11747
Checksum: 303

Satellite: K0-23

Catalog number: 22077
Epoch time: 93278.76031854
Element set: 160
Inclination: 66.0854 deg
RA of node: 92.6845 deg
Eccentricity: 0.0002474
Arg of perigee: 358.7953 deg
Mean anomaly: 1.3056 deg
Mean motion: 12.86280742 rev/day
Decay rate: .000000000 rev/day^2
Epoch rev: 5405
Checksum: 285

Satellite: A0-27

Catalog number: 22825
Epoch time: 93285.75852196
Element set: 202
Inclination: 98.6768 deg
RA of node: 358.7223 deg
Eccentricity: 0.0007582
Arg of perigee: 207.9609 deg
Mean anomaly: 152.1156 deg
Mean motion: 14.27584304 rev/day
Decay rate: 1.08e-06 rev/day^2
Epoch rev: 237
Checksum: 321

Satellite: IO-26
Catalog number: 22826
Epoch time: 93285.89749859
Element set: 203
Inclination: 98.6800 deg
RA of node: 358.8662 deg
Eccentricity: 0.0008357
Arg of perigee: 209.4671 deg
Mean anomaly: 150.6040 deg
Mean motion: 14.27683559 rev/day
Decay rate: -7.38e-06 rev/day^2
Epoch rev: 240
Checksum: 341

Satellite: KO-25
Catalog number: 22830
Epoch time: 93286.24408072
Element set: 203
Inclination: 98.5818 deg
RA of node: 359.0811 deg
Eccentricity: 0.0011764
Arg of perigee: 176.3255 deg
Mean anomaly: 183.8015 deg
Mean motion: 14.28008897 rev/day
Decay rate: 3.88e-06 rev/day^2
Epoch rev: 245
Checksum: 309

/EX

Date: 15 Oct 93 20:27:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS\$288.M.AMSAT

To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-288.M
Orbital Elements 288.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM WA5QGD FORT WORTH, TX October 15, 1993
BID: \$ORBS-288.M
TO ALL RADIO AMATEURS BT

Satellite: MIR
Catalog number: 16609
Epoch time: 93287.91659936
Element set: 513
Inclination: 51.6198 deg
RA of node: 337.9204 deg
Eccentricity: 0.0006216
Arg of perigee: 305.1714 deg
Mean anomaly: 54.9308 deg
Mean motion: 15.58279881 rev/day
Decay rate: 1.2841e-04 rev/day^2
Epoch rev: 43779
Checksum: 338

Satellite: HUBBLE
Catalog number: 20580
Epoch time: 93285.89217617
Element set: 346
Inclination: 28.4714 deg
RA of node: 25.6000 deg
Eccentricity: 0.0004277
Arg of perigee: 200.8921 deg
Mean anomaly: 159.1488 deg
Mean motion: 14.92864914 rev/day
Decay rate: 1.014e-05 rev/day^2
Epoch rev: 18911
Checksum: 295

Satellite: GRO
Catalog number: 21225
Epoch time: 93287.69243962
Element set: 204
Inclination: 28.4596 deg
RA of node: 143.8399 deg
Eccentricity: 0.0031997
Arg of perigee: 73.7914 deg
Mean anomaly: 284.4661 deg
Mean motion: 15.69123449 rev/day

Decay rate: -3.187e-05 rev/day^2
Epoch rev: 1896
Checksum: 346

Satellite: UARS
Catalog number: 21701
Epoch time: 93278.64533739
Element set: 301
Inclination: 56.9828 deg
RA of node: 98.8945 deg
Eccentricity: 0.0004765
Arg of perigee: 103.9118 deg
Mean anomaly: 256.2447 deg
Mean motion: 14.96188134 rev/day
Decay rate: 2.432e-05 rev/day^2
Epoch rev: 11282
Checksum: 318

Satellite: POSAT
Catalog number: 22829
Epoch time: 93286.45464408
Element set: 203
Inclination: 98.6757 deg
RA of node: 359.4183 deg
Eccentricity: 0.0010287
Arg of perigee: 192.1840 deg
Mean anomaly: 167.9104 deg
Mean motion: 14.27974280 rev/day
Decay rate: -6.75e-06 rev/day^2
Epoch rev: 248
Checksum: 323

/EX

Date: 15 Oct 93 20:16:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS\$2880.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-288.0
Orbital Elements 288.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM WA5QGD FORT WORTH,TX October 15, 1993
BID: \$ORBS-288.0
TO ALL RADIO AMATEURS BT

Satellite: A0-10
Catalog number: 14129
Epoch time: 93279.33702867
Element set: 82
Inclination: 27.1481 deg
RA of node: 2.4799 deg
Eccentricity: 0.6019419
Arg of perigee: 119.8710 deg
Mean anomaly: 312.5993 deg
Mean motion: 2.05881755 rev/day
Decay rate: $-8.1e-07$ rev/day²
Epoch rev: 7754
Checksum: 322

Satellite: U0-11
Catalog number: 14781
Epoch time: 93287.01910323
Element set: 602
Inclination: 97.8038 deg
RA of node: 308.1221 deg
Eccentricity: 0.0011698
Arg of perigee: 343.7711 deg
Mean anomaly: 16.3119 deg
Mean motion: 14.69066684 rev/day
Decay rate: $3.33e-06$ rev/day²
Epoch rev: 51416
Checksum: 289

Satellite: RS-10/11
Catalog number: 18129
Epoch time: 93286.63524979
Element set: 802
Inclination: 82.9272 deg
RA of node: 151.0843 deg
Eccentricity: 0.0011771
Arg of perigee: 355.8415 deg
Mean anomaly: 4.2641 deg
Mean motion: 13.72323405 rev/day
Decay rate: $-1.37e-06$ rev/day²
Epoch rev: 31609
Checksum: 295

Satellite: A0-13
Catalog number: 19216
Epoch time: 93281.01224299
Element set: 695
Inclination: 57.8884 deg

RA of node: 290.6961 deg
Eccentricity: 0.7215384
Arg of perigee: 325.7101 deg
Mean anomaly: 4.0040 deg
Mean motion: 2.09725266 rev/day
Decay rate: -1.11e-06 rev/day^2
Epoch rev: 4072
Checksum: 291

Satellite: F0-20

Catalog number: 20480
Epoch time: 93286.05864589
Element set: 601
Inclination: 99.0206 deg
RA of node: 119.8565 deg
Eccentricity: 0.0540673
Arg of perigee: 179.4597 deg
Mean anomaly: 180.7200 deg
Mean motion: 12.83221389 rev/day
Decay rate: -1.4e-07 rev/day^2
Epoch rev: 17243
Checksum: 315

Satellite: A0-21

Catalog number: 21087
Epoch time: 93286.04684787
Element set: 354
Inclination: 82.9463 deg
RA of node: 325.6114 deg
Eccentricity: 0.0036668
Arg of perigee: 54.2687 deg
Mean anomaly: 306.1872 deg
Mean motion: 13.74525633 rev/day
Decay rate: 4.6e-07 rev/day^2
Epoch rev: 13563
Checksum: 325

Satellite: RS-12/13

Catalog number: 21089
Epoch time: 93285.72497418
Element set: 602
Inclination: 82.9243 deg
RA of node: 194.9512 deg
Eccentricity: 0.0030810
Arg of perigee: 77.1277 deg
Mean anomaly: 283.3318 deg
Mean motion: 13.74028313 rev/day
Decay rate: 1.42e-06 rev/day^2

Epoch rev: 13466
Checksum: 303

Satellite: ARSENE
Catalog number: 22654
Epoch time: 93282.56758711
Element set: 201
Inclination: 1.3450 deg
RA of node: 116.0755 deg
Eccentricity: 0.2933466
Arg of perigee: 157.4440 deg
Mean anomaly: 219.9134 deg
Mean motion: 1.42201061 rev/day
Decay rate: -5.0e-07 rev/day^2
Epoch rev: 219
Checksum: 256

/EX

Date: Mon, 11 Oct 1993 18:18:11 GMT
From: elroy.jpl.nasa.gov!sdd.hp.com!hpscit.sc.hp.com!hplextra!hpcc05!hplds!a!
brunob@ames.arpa
Subject: Reciprocal licenses
To: info-hams@ucsd.edu

At your local FCC office' form 610B
5yrs renewable

from the log of AA6AD

Date: Mon, 11 Oct 1993 18:23:40 GMT
From: elroy.jpl.nasa.gov!sdd.hp.com!hpscit.sc.hp.com!hplextra!hpcc05!hplds!a!
brunob@ames.arpa
Subject: VACUUM TUBE SOURCE NEEDED
To: info-hams@ucsd.edu

Did you try your local flee-market?

from the log of AA6AD

End of Info-Hams Digest V93 #1225
